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ABSTRACT

Declining test scores have been publicized throughout the nation for the past several years as a major educational issue. Because of the kinds of statements made, the conclusions drawn by educators and public alike, the San Mateo Educational Resources Center requested that a review of the literature and a bibliography be prepared that indicated what the literature actually did say. As a result of the review, this monograph which presents a "state-of-the-art" of the entire issue, was prepared. In order to examine various aspects of test score decline a practice is borrowed from the literature, and areas from which explanations concerning test score declines may come are examined: (1) changes in the tests themselves, (2) changes in the population(s) taking the test, (3) changes in the school context in which education takes place, and (4) changes in the social context in general. An annotated bibliography is also included. (Author/MV)

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333 MAIN STREET
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RESOURCE GUIDE

from the world of EDUCATION

DECLINING TEST SCORES

IMPORTANT
Show here which form you are using (See front of booklet)
FORM —
W ○ 81 ○

DIRECTIONS: The answer spaces below are numbered the same as the items in the booklet. Fill in one space for each item. Read the instructions in the booklet carefully.

If you like the item mark the "L" ——— ● Ⓘ Ⓓ
If you are **indifferent** to the item mark the "I" ——— Ⓛ ● Ⓓ
If you **dislike** the item mark the "D" ——— Ⓛ Ⓘ ●

Use a soft lead pencil (#2 or 2½).
Answer each item.
Blacken circle completely.
If you make a mistake, erase completely.

PART 1

1	21	41	61	81	101	121	141	161	
2	22	42	62	82	102	122	142	162	
3	23	43	63	83	103	123	143	163	
4	24	44	64	84	104	124	144	164	
5	25	45	65	85	105	125	145	165	
6	26	46	66	86	106	126	146	166	
7	27	47	67	87	107	127	147	167	
8	28	48	68	88	108	128	148	168	
9	29	49	69	89	109	PART 2 129	149	169	
10	30	50	70	90	110				
11	31	51	71	91	111	131	151	171	PART 3
12	32	52	72	92	112	132	152	172	
13	33	53	73	93	113	133	153	173	
14	34	54	74	94	114	134	154	174	
15	35	55	75	95	115	135	155	175	
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17	37	57	77	97	117	137	157	177	
18	38	58	78	98	118	138	158	178	
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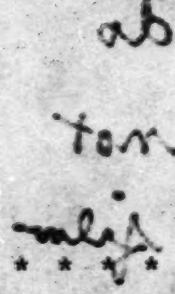
INTRODUCTION

Declining test scores have been publicized throughout the nation for the past several years as a major educational issue. Because of the kinds of statements made, the conclusions drawn by educators and public alike, the San Mateo Educational Resources Center requested that a review of the literature and a bibliography be prepared that indicated what the literature actually did say. As a result of this review, a "monograph" was prepared by David E. Rawnsley, Educational Consultant, that presents a "state-of-the art" of the entire issue. A comprehensive bibliography has been included to present as wide a view of the literature as it was possible to obtain.

This monograph does not necessarily reflect the opinions or attitudes of the San Mateo County Office of Education.

Frank W. Mattas
Administrative Director



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DECLINING TEST SCORES

by

David E. Ramsley

Most educators at the school/school district level are well aware of the "declining test score" phenomena. Given the attention it has drawn in the media, and its appearance in school board meetings, election campaigns, and practically any other discussion of public education, the issue has been rather difficult to ignore. On the other hand, the apparent decline in standardized test scores of students over the last decade is an issue which is extremely difficult to get a "handle" on, and it is even more difficult, if possible at all, to arrive at any well-founded conclusions as to its meaning to those directly responsible for running schools. These difficulties are compounded by the rather inaccessible and fragmentary nature of the literature on the subject.

The purpose of this monograph is to provide San Mateo Educational Resources Center (SMERC) clientele with a review of at least a portion of current literature on the subject. It is not the author's purpose to offer any new conclusions about the phenomena itself, or to point any new fingers of blame (or conversely, to make any new defenses) relative to test score trends. There seem to be an adequate number of folk around who are more than willing to perform those tasks. I will not resist the temptation, however, to make some comments about the literature itself.

For those not familiar with the chain of events relative to this topic, a brief review may be helpful. (More extensive reviews are included in many of the sources cited later in this monograph.)

In the fifties and early sixties there was a steady increase in the test scores attained on standardized tests by those students taking them, particularly on the Scholastic Aptitude Test (the SAT), a college admissions test produced by the College Entrance Examination Board (CEEB).

Beginning around the mid-sixties, scores on many tests began to decline, and have continued to do so, with declines tending to be more pronounced in the early 1970's.

Two or three years ago, the decline in test scores began to draw considerable public and professional attention. A number of conferences were held with the support of various foundations and the National Institute of Education, and frequent articles began to appear in both the popular media and in professional publications. Media attention tended to concentrate on scores attained on the SAT, primarily due to CEEB's admirable policy of making SAT results readily available to the public and the profession.

Some six months ago, CEEB established a "blue ribbon" committee to examine the test score decline phenomena, and (perhaps) to shed some light on its probable causes. No report has been issued by this panel, although one may be issued in the near future.

There are some indications that the decline, which at least from the available data appears to have been nationwide (although more severe in some regions than in others) and general (that is, common to a number of tests) may be "bottoming out." For example:

In a letter to the Washington Post, September 25, 1976, as reported in REPORT ON EDUCATION RESEARCH of October 6, 1976, NIE Director Harold Hodgkinson and Education Statistician Marie Elridge noted that:

...1975-76 SAT scores show no decline in mathematics and the smallest decline (3 points) in five years in verbal skills;

...The Iowa Testing Program (a testing program whose results tended to follow the same decline trends as the SAT) reports increases in all subject scores for most grade levels and greatly reduced declines for 7th and 8th grades;

...The National Assessment of Educational Progress (NAEP) indicates a rise in the basic reading skill scores of 17 year olds over previous assessment;

...A general increase in scores can be seen in the Graduate Record Exam. Also the California Assessment Program, which since its beginnings in 1969 had indicated a decline in test scores similar to that on other tests, particularly for high school seniors, showed improved scores over 1974-75 in all grade levels tested in all subjects tested (1).

Not all testing program results followed the general score decline. In "The Marrow of Achievement Test Score Declines" (2), Harnischfeger and Wiley list some seven tests or testing programs all or parts of which showed decline trends; four tests or levels of tests which showed no trends; and five tests or sub-tests which showed increasing trends. Of the latter nine, five were tests of basic skills at grade 4 or under. Other counter-indications of significant declining achievement include the study by Farr, et al (3) which analyzed longitudinal studies of reading achievement, and concluded that "the gradual improvement in reading competency over the four decades prior to 1965 may have lessened or halted; and finally over the last ten years there may have been a very slight decline in reading achievement." However, the authors go on to say, "Of all our hesitant interpretations, we feel least certain about the last one. We are convinced that anyone who says that he knows that literacy is decreasing is ignoring the data. Such a person is at best unscholarly and at worst dishonest." Also, Flanagan and Jung (4), using Project Talent data, found a slight increase in the reading scores of high school students during the same period as college admissions scores were declining.

Readers who are interested in examining the background and data of the test score decline question would be interested in either (or both) of two documents:

Achievement Test Score Decline: Do We Need to Worry? (5) (See (2) for a shorter version of this report) by Harnischfeger and Wiley of CEMREL, Inc. This study, supported by a Ford Foundation grant, provides a comprehensive review of the data and some of the various hypotheses which might be put forth to explain the apparent decline. While trying hard to avoid arriving at any conclusions about which hypothesis expresses the "truth", the authors' position might best be exemplified by their statement that "Our analysis serves mostly to point towards some possibly productive research areas, giving priority to areas which are more easily manageable politically (emphasis added). These are more commonly located within the school context." Their primary recommendation is for more research. (Incidentally, if you are afraid of the score decline, don't let your opponents get hold of the graphs in this volume. They are scaled in such a way as to make the declines look a bit like market values in 1929!)

Declining Admissions Test Scores by L. A. Munday (6). Although primarily concerned with investigating hypostheses which might explain the decline in college admissions test scoring (that is, the SAT referred to previously and the American College Tests (ACT), the author does review data from other testing programs, and provides analysis of other related data. He concludes that the best explanation for declines are changes in the population taking the test and changes in high school curricula.

An article briefer than these two describing the situation relative to the SAT is "The SAT Score Decline: Facts, Figures, and Emotions" by Wm. Harris (7).

We should also note that the June and July, 1976 editions of the periodical Educational Technology were devoted in large part to articles related in one way or another to the phenomena of test score decline. Although many of the articles in these two editions cast more light on an author's predelictions about what is wrong with American education than on the question of the reality and/or significance of the apparent decline, the publishers of the magazine deserve congratulations for providing us with a comprehensive look at the problem and various opinions about it.

One of the overriding problems in attempting to analyze test score trends, particularly on a national level, is in determining or estimating what constitutes a significant rise or decline in aggregated test scores. I am not referring here to statistical significance, which relates primarily to the probability of whether a given score change is due to chance or some other factor, but to significance in terms of whether a given change in test scores indicates that students are more or less able, in the "real" world, to use the skills and knowledge measured by the instruments. The SAT and ACT college admissions tests have continued to be good predictors of college success, particularly

when combined with other data such as high school grades, according to studies conducted by their producers and cooperating colleges (8). However, it is unclear whether this predictive success is based on relative scores (i.e. where a given student's score was relative to others who took the test) or absolute (i.e. some specific and constant range of scores were predictive of success, and scores outside of that range indicated less chance of success). Just to complicate the situation, college grades themselves can't be used as a constant measure of college achievement. Ferguson and Maxey (9) found that both high school and college grades are rising, most likely due to increased leniency in grading practices. (This trend, at least at the college level, seems to be reversing according to the Chronicle of Higher Education, September 7, 1976.) There seem to be no objective measures of achievement at the college level, so it is extremely difficult to determine whether declining achievement measures taken at the upper high school level are mirrored (or contradicted) by declining achievement at later stages of education. Harnischfeger and Wiley (5) allude to this problem of the significance of test score declines in terms of student learning. They recommend analysis of test content and measurement scales so as to make more exact determinations of what skills and knowledge are being measured.

There is, of course, considerable opinion that calls into question the use of aptitude and achievement tests in the first place. There is a great deal of writing concerning the abuse of testing technology which will not be reviewed here (10). However, the educational significance of test scores seems to be intimately tied to the objectives of educational programs. Rippey (11), for example, while implying that he accepts the test score decline trend as real, presents the hypothesis that a major causative factor is that "schooling currently suffers from a confusion of aims" and challenges the reader to try to reach agreement on the aims of schooling through high school with some of his/her friends (and he doesn't even mention enemies!). Kapfer, Kapfer and Woodruss (12) refer to analyzers of the test score decline as "ax grinders" or "data grinders" based on these authors' position that the tests are measuring "in-school" success, whereas important educational objectives refer to "in-life" success, and the two are not the same. Heath, in a presentation to the annual meeting of the Educational Records Bureau (as reported in Education USA, November 8, 1976), gave the results of his study of several hundred young men at ages 17 and 34. His conclusions are that standardized tests measure only a small part of the traits related to success as adults. The important traits, he found, were such things as interpersonal skills, vocational adaptability, intellectual curiosity, logical thinking, and the ability to analyze problems, none of which are measured directly by the commonly used tests. In any case, it seems very reasonable to assume that unless one accepts as a major aim or goal of education in particular or learning in general a continual rise or constant state in aggregated standardized test scores, then the question of the match between instructional objectives and what is tested by the tests seems to be one that deserves considerably more attention. It is perhaps not coincidental that the trends on most of the tests whose scoring trends are analyzed in the literature indicate that scores in Science and Mathematics do not have the same severity

of decline (and in fact in some cases do not decline) as those of Reading (beyond the basic skills) and Social Science. Those of us who have attempted to develop program objectives for high schools will remember the relative ease with which one can develop acceptable objectives for the former two subjects, and the difficulty of arriving at any sort of concensus, or any high degree of specificity, when considering the latter two.

In order to examine various aspects of the subject in question, we will borrow a practice from the literature, and look at four general areas from which explanations concerning test score declines may come; that is, changes in the test themselves, changes in the population(s) taking the test, changes in the school context in which education takes place, and changes in the social context in general. Even this approach to looking for explantions has to be taken with a grain of salt, since it may predispose those examining the problem to go in one direction over another, or to ignore some areas altogether. For example, this author could find no mention in the various writings reviewed of the possibility that the statistical assumptions and techniques used in scaling and norming (and rescaling and renorming) tests or in analyzing data from the tests, might bear reexamination. Not a whole lot is said, either, about the interactions among potential explanatory factors. However, since this is a review, and not an attempt at original research, we will use the scheme used by a large part of the literature.

CHANGES IN THE TESTS THEMSELVES:

This is the least popular area for developing hypotheses concerning the test decline. The major test publishers involved, The College Entrance Examination Board (CEEB) and American College Testing Programs (ACT), have rescaled and renormed their tests a number of times during the period of "rise and decline", and claim that these activities have not contributed significantly to changes in scores, and in fact, in some cases, should have had the effect of raising them (see Munday (6) and Harris (7)). Harnischfeger and Wiley (2,5), having examined a number of these renorming studies, agree with this claim. That there have been no changes in the tests which are significant enough to explain the general test score decline seems to be a generally accepted position, albeit one which is primarily supported by evidence gathered by the test publishers themselves. This reviewer could find but one study which at least by implication might throw some doubt on this conclusion. Kenneth Lowry of the Mt. Diablo (California) School District, (13) administered the same form of the Progressive Achievement Test. This test was normed and widely used during the period 1930-50 to a stratified random sample (on the base of Socio-Economic Status) of 6th and 11th grade students, and the results were compared to the norms used in 1934-43. Lo and behold, the contemporary students performed as well as (in fact, slightly better than) the norms indicated they should, in spite of the fact that the retention rate in school currently is as much as 50% higher than it was during the norming period, a fact which should depress scores. (Retention rate statistics are included in various editions of either the Encyclopedia of Educational Research or the Statistical Abstract of the

USA). Granted this study is not conclusive. Mt. Diablo may be an unusually effective school system, and unfortunately there is no longitudinal data on (renormed) versions of the same test to see whether its results would have followed the same downward trends as other tests, but it is thought-provoking.

One other aspect of the tests would seem to deserve more consideration than it appears to have been given by various authors--the relationship among the various tests themselves. Its publisher takes a strong position that the SAT is an aptitude test, while other tests whose scores are included in the score decline discussion are described as achievement tests. Harnischfeger and Wiley (5) make note of this problem, but decline to "delve into" it. They "simply acknowledge that the widely used (standardized) tests are focusing on cognitive areas of human performance", and refer to Cronbach's distinction between aptitude tests and achievement tests as being dependant upon the use of the test data (14). However, this distinction has its limitations, and it might be enlightening to educators and others if, before making assumptions about the unitary nature of the test score decline, more attention might be paid to investigating whether the tests involved are focusing on the same "cognitive areas of human performance."

CHANGES IN THE POPULATION TAKING THE TESTS:

Harnischfeger and Wiley (5) tend to find themselves alone in dismissing changes in the population taking the test as being a potent source of explanation for the decline. They do point out that the vastly greater retention rate in school over the past few decades could provide part of such an explanation, but reject it as a major cause, in part because, although the increase in school retention tended to level off in the late sixties, test scores continued to decline. On the other hand, the publishers of both the SAT and the ACT (the score trends of which tend to be the primary data used to demonstrate test score decline) both find changes in test population as being a highly probable explanation for the phenomena. Cleary (15) in a paper developed for CEEB provides data to support this hypothesis. William Angoff, Executive Director of College Boards Program, (the parent agency of the CEEB), while asserting the conviction the complex interaction of factors is responsible for the score decline, stated that (based on their studies) "we believe that the decline is idiosyncratic to the changing nature of the SAT population"(16). Munday (6) reviews much the same data as the other authors cited above, and arrives at the tentative conclusion that changes in population of test takers provides a major explanation for score decline, along with a lower level of preparation. To quote two of his salient points: "There is evidence that today we have a different group of people writing college admissions tests. As contrasted with several years ago, today there are more low scoring ACT-tested students and about the same number of high scoring students. Many of these low scoring students are women. In fact, there has been considerable decline in ACT score averages for women, with less decline for men. At the same time more women are writing the ACT tests. These women, in turn, are attending 2-year colleges. This suggests that at least some of the ACT

test score decline could be due to different people taking the test today in comparison with several years ago." "The decline in ACT scores would seem to be attributable at some times to different people taking the tests, and at other times to the test takers being less well prepared." These conclusions seem to be supported by the fact that during a period of tremendous growth in the number of students in both public schools and colleges, the number of persons sitting for the SAT and ACT declined. Further, none of the populations who took (or take) these tests can be said to be random samples of any other larger population.

It is very difficult to resist the temptation to be picky with those who have written about the test score decline. However, the literature seems to this reviewer to be so full of what may appear to be minor discrepancies, that one sometimes gets the feeling (hopefully false) that at least in part the claimed size of the phenomena may be overstepping the data. This is as good a time as any to offer some examples, just to give the reader a flavor of the literature. (My apologies to the writers selected; they are certainly not alone.) Munday (6, page 8) says "The downward year to year trend in admissions test score averages is fully documented." And yet his own data on ACT composite scores presented on page 1 of the same document show that (1) out of the ten years reported (1964-74) there were 4 years in which the composite score average was higher than the previous year, and (2) almost all of the total decline from the high point (1964-65) to the low point (1974) is accounted for by declines occurring in only two years. This does not sound like a "downward year to year trend", and some explanation might have been helpful. On page 56 of Harnischfeger and Wiley (5) we find: "ITBS data from the State of Iowa are perhaps more valuable than National data for the assessment of score declines as the demographic composition of the test taking populations is extremely stable and constitutes the vast majority of Iowa pupils." If this is meant to imply that the Iowa data is somehow representative of national data, it seems worth explaining why an extremely stable population would be representative during a period when the national population of school children, with its vast increase in numbers, increased rate of transience, increased rate of retention, etc. could very easily be described as highly unstable.

CHANGES IN THE SCHOOL:

Hypotheses about what's wrong with American education have been, and I guess always will be, a dime a dozen, whether their stimulus is declining test scores, satellites, or student radicals. It seems to me that critics of educational practice were as rampant in the late fifties and early sixties as at any other time, and that was a period of rising test scores. However, several of the authors cited above, while mentioning the more common complaints and movements, do attempt to limit their diagnosis or hypothesis-making to areas in which some data is available, such as school attendance, length of instruction, and curricular change. The latter area draws the most attention. Gertler and Barker (17) provide data which indicate that high school curriculum offerings and enrollments have tended to change, primarily away from a

common offering of "core" or general courses toward more "elective" or specialized courses. Unfortunately, there are many who want to imply that the coincidence of declining college admissions test scores with changes in high school curricula means that the curricular changes were "bad" and should be eliminated. This leap of logic makes the tests sacrosanct (and who is to say that if the tests more closely mirrored current high school curricula they wouldn't be better predictors of college success?) and assumes that "success in college" (and the college curricula itself) is a constant measure, and has been for the past 10-20 years. Ferguson and Maxey (9) and Rever and Kojaku (18) both document, analyze and discuss the data which indicate that while test scores have been declining, high school and college grades have been rising. The latter phenomena is generally assigned to more lenient grading policies, but no evidence is produced (probably because it doesn't exist) which would allow us to compare how college students today achieve relative to college students at other times. Also, explanations by way of high school curricular change don't get us far in explaining declines in test scores at other educational levels.

A major question arises as to the degree to which it is appropriate to use test scores of the types under discussion (such as the SAT or ACT) for the purposes of evaluating school programs, particularly high school programs. In an article entitled "Questions You Asked About Testing and Admissions" (author not noted) in the ATP News (a publication of CEEB) (19), it is stated that "the SAT was not designed to be a measure of the effectiveness of education in the high schools. It was designed to measure the kinds of abilities that generally develop very slowly over the student's entire academic life. These abilities are heavily dependent on learning experiences outside the classroom as well as on learning experiences within the classroom." In the same issue, Sidney Marland, President of the College Board, goes one step further, saying that (the SAT) "---was not designed as a measure of school performance and should not be used that way. To single out the schools as being responsible for the decline is unwarranted, unfair, and scientifically unfounded." This position is also taken by Wm. Harris of the CEEB staff in a good overview of the SAT (7). Not to do so, of course, is almost beyond human capabilities. As one example, in the same edition of ATP News as that cited above, Fred A. Hargadon, Dean of Admissions at Stanford University, is quoted as follows:

"---they (the College Boards) provide a general backdrop against which to view the grades and the quality of academic programs of the nearly 30,000 secondary schools." Of course, the dean is but one among many who take what Dr. Marland seems to be saying is an "unscientific" approach to the problem.

To use large national aggregations of test scores as a means to say something about the American Educational System, of course, must be based on the assumption that things occur in this "system" in a relatively simultaneous and integrated manner. That this may not be a wholly defensible assumption will be obvious to those who are familiar with American education. Munday (6) does refer to data which indicates that there have been States which use the ACT but in which declines

have not occurred, although he arrives at the conclusion that declining test scores are a national phenomena. Are educational programs significantly different in those States than in other parts of the nation? This would seem to be a fruitful area for investigation. Just to confuse the issue (if it isn't confused enough), King and Hieronymus (20) provide data which indicate that test scores at intermediate levels in Canada have declined in much the same pattern as many in the U.S. Are Canadian and U.S. schools part of the same system?

It should also be noted that if college admissions tests measure to some degree the sum of learning over an entire academic career, then one must question their use in evaluating high school programs alone. If one wants to make the assumption that these tests do make some sort of measure of decline in learning, then it is not unreasonable to say that the decline began sometime in the middle or late fifties, when the students whose admissions tests scores began to decline in the early or mid-sixties were getting their basic education. Do tests scores show a decline in elementary education prior to the decline in admissions test scores? The literature would not seem to indicate that this was the case; in fact, in many cases, the opposite would seem to be true.

Try this on for size. If you accept national averages of test scores as a direct indication of quality of educational programs, you should also accept (based on the data) that students who were in college during the mid-sixties were better educated than those in college in the late fifties! The acceptance or rejection of that position probably depends more on your political orientation than on any hard data.

Lest all of the above should give the impression that this writer takes the position that declining test scores have nothing to do with schools, let me say that I personally think they do, but only to the degree of providing one more motivation to make a serious and continuing assessment of the schools for which you share some responsibility. Declines (or rises) in test scores on a national basis do not (and cannot) in themselves say much about what is going on in a particular school setting, although they make good fodder for writers, politicians, and researchers.

CHANGES IN SOCIAL CONTEXT:

Practically everything which has changed in the past 20 years has been referred to, one way or another, as at least a partial contributor to the apparent test score decline. Thomas (21), for example, provides a tongue-in-cheek method for making use of this tendency. Sapone and Giuliano (22) list some 19 social phenomena which might be contributors. However, the difficulty of providing hard data, and of building some direct relationships between these phenomena and test scores, seem for most authors to make them less attractive than school-oriented explanations. There are some rather unexpected areas of inquiry, however, which should be mentioned. Zajonc (23) provides demographic data which relates birth order and family size

to intellectual ability. One of the most interesting aspects of this data is that it is explanatory of both the rise and the decline of test scores, and as such is the only piece of literature this reviewer could find which attempted to do so.

It is interesting in a negative way that little mention was found, among all the social context explanations, of changes in language and in standards of language in the society as a whole. There are those of us who remember when a fair number of people could get excited over some example of improper usage in an advertisement!

In summary, I have reviewed at least some of the literature concerning the phenomena of standardized test score decline. The phenomena consists of the results of disparate tests both in purpose and content, administered to non-randomized samples of students in a variety of manner of administration, being used to measure either educational programs or society as whole (or both) without the benefit of any explicit standard, objective, or criteria. All in all, it is appalling research design from any standpoint. Surely local educators and communities can develop better ways to assess local schools, or to determine national educational policy.

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American Institutes for Research
Palo Alto, 1971
(Order No. ED 052 226) -- 1 microfiche

(5) ACHIEVEMENT TEST SCORE DECLINE: DO WE NEED TO WORRY?
Harnischfeger, A. and Wiley D.
ML-Group for Policy Studies in Education, CEMREL, INC., 3120 - 59th Street, St Louis, MO 63139
(NOT AVAILABLE FROM SMERC)

(6) DECLINING ADMISSIONS TEST SCORES
American College Testing Program, P.O. Box 168, Iowa City, IA 52240
(NOT AVAILABLE FROM SMERC)

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The National Assessment of Educational Progress, which is a major program of the Education Commission of the States, undertakes a continuing cycle of assessments of attainment of learning at various age levels in the basic content areas. Two documents describing this effort in a general way are:

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The College Entrance Examination Board operates a comprehensive Admissions Testing Program which includes the SAT, the Test of Standard Written English, the ATP Achievement Tests, and the Student Descriptive Questionnaire. Results analysis of this program are available from CEEB in such publications as:

NATIONAL REPORT: COLLEGE-BOUND SENIORS, 1975-76
Admissions Testing Program, College Entrance Examination Board, Princeton, N. J. 1976. (Western regional office: 800 Welch Rd., Palo Alto)
Regional and State reports are also available.

JJ 24 (Order No.)
THE DECLINE IN ACT TEST SCORES: WHAT DOES IT MEAN?
Ferguson, R.
Educational Technology, June 1976, pp21-27
This article summarizes the data concerning test score trends on the ACT, comments on possible causes of the decline, and draws implications for colleges using this admissions test.

JJ 25 (Order No.)
ASSESSING EDUCATIONAL ATTAINMENTS
Forbes, R.
Educational Technology, June 1976, pp27-29
This article is a brief summary of the results of the National Assessment of Educational Progress, particularly in the areas of Science, Writing, and Mathematics.

JJ 26 (Order No.)
MINORITIES, INSTRUCTIONAL OBJECTIVES AND THE SAT
Burns, R.
Educational Technology, June 1976, pp39-41
The author analyzes the results of two years testing using the SAT in the El Paso (Texas) School District, particularly in reference to sex and minority differences in performance.

JJ 27 (Order No.)
CHANGING IQ AND THE FAMILY CONTEXT
Walberg, H.
Educational Technology, June 1976, p42
A brief review of studies of IQ change and its relationship to family configurations.

JJ 28 (Order No.)
THE NATIONAL ASSESSMENT: A CRITICAL REVIEW AND A NEW DIRECTION
Cunningham, W.
Clearinghouse, October 1976, pp82-87
The author criticizes the National Assessment for not reporting data which is directly useful for local school purposes, and suggests ways in which this situation might be improved.

JJ 29 (Order No.)
Is Lack of Instructional Validity Contributing to the Decline of Achievement Test Scores?
Feldhusen, J., Hynes, K., and Ames, C.
Educational Technology, July 1976, pp13-16
The authors question the conventional validation of standardized tests, and propose a concept of "instructional validity" as a means of more closely relating standardized tests and educational practices.

JJ 30 (Order No.)
AN EXERCISE IN FREEDOM: A PLACE WHERE TEST SCORES APPEAR TO BE RISING
Champagne, D. and Roberts, E.
Educational Technology, July 1976, pp18-24
A report of a school program in which efforts to increase student interest in school apparently resulted in improved SAT scores.

JJ 31 (Order No.)
IF READING SCORES ARE IRRELEVANT, DO WE HAVE ANYTHING BETTER?
Acland, H.
Educational Technology, July 1976, pp25-29
The author calls for use of competency based tests to access education rather than standardized (normed) measures, and describes one such test (the Adult Performance Level Functional Literacy Test) and its use in some detail.

JJ 32 (Order No.)
THE WRITING SKILLS DECLINE: SO WHAT?
Della-Piana, G., Odell, L., Cooper, C. and Endo, G.
Educational Technology, July 1976, pp30-39
The authors closely critique standardized instruments used for the assessment of writing skills, and conclude that such tests are of little use in diagnosis and teaching of writing. Recommendations are given for the development of more useful and meaningful instruments.

ED 120 252 (Order No.)
NATIONAL LONGITUDINAL STUDY OF THE HIGH SCHOOL CLASS OF 1972--BASE-YEAR STUDY: STUDENT QUESTIONNAIRE AND TEST RESULTS BY ACADEMIC ABILITY, SOCIOECONOMIC STATUS, AND REGION
Fetters, W.
National Center for Educational Statistics, DHEW, Washington, D.C.
1976 2 microfiche
This document describes a major longitudinal study undertaken by the National Center for Educational Statistics, describes the various instruments being used, and presents the baseline data collected.